



SOCIETY OF ACTUARIES

Article from:

# ARCH 2014.1 Proceedings

July 31-August 3, 2013

## On A Risk Measure Inspired From The Ruin Probability And The Expected Deficit at Ruin

*Ilie-Radu Mitric<sup>1</sup>, Julien Trufin<sup>2</sup>*

<sup>1</sup> Université Laval, École d'actuariat, Canada; [ilie-radu.mitric@act.ulaval.ca](mailto:ilie-radu.mitric@act.ulaval.ca)

<sup>2</sup> Université Laval, École d'actuariat, Canada; [julien.trufin@act.ulaval.ca](mailto:julien.trufin@act.ulaval.ca)

In this paper, we study a risk measure derived from ruin theory defined as the smallest initial capital needed to cope in expectation with the first occurrence of a ruin event. Specifically, within the compound Poisson model, we investigate some properties of this risk measure with respect to the stochastic ordering of claim severities. Particular situations where combining risks yield diversification benefits are identified.